CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO. CA 95814-5512

NOTICE OF PROPOSED AWARDS
Climate Change Grant Solicitation
September 2, 2008

On March 17, 2008, the California Energy Commission (Energy Commission) released a *Program Opportunity Notice* (Notice) and Application Package for Research Projects on Climate Change of Relevance to California Grant Solicitation under the Global Climate Change Research Area of the Public Interest Energy Research (PIER) Program. The Notice announced that up to $2.9 million was available for PIER project funding under this solicitation.

In accordance with the 2008 Application Package for the Climate Change Research Development Grant Solicitation, each proposal was screened for completeness and reviewed by Energy Commission staff and external technical reviewers. The Review Team was formed by technical staff form the Energy Commission, Department of Fish and Game, Resources Agency, The University of California Office of the President, Stanford University, UC Davis, Air Resources Board, and Department of Water Resources. The proposals were reviewed, evaluated, and scored using the criteria prescribed in the Application Package. Based on the Review Team's scores and suggested condition on funding, the Energy Commission's RD&D Committee has made its proposed funding recommendations for this Climate Change RD&D Grant Solicitation. This Notice of Proposed Awards is hereby issued pursuant to those recommendations.

The attached table, Committee Funding Recommendations for the Climate Change Research Development and Demonstration Grant Solicitation, identifies each of the applicants selected to receive funding; the project title; the amount of recommended funding by the RD&D Committee; and scoring information. Climate Change RD&D Grant Solicitation project funding is contingent upon the Energy Commission receiving these projected PIER projects funds and the authority to expend those funds for fiscal years 2007/2008, 2008/2009 and 2009/2010. This notice is being mailed to all parties who submitted a proposal to this solicitation and is also posted on the Energy Commission website as follows: http://www.energy.ca.gov/contracts/

The full Energy Commission will consider each of the Committee's recommendations during a publicly noticed Business Meeting at the Energy Commission in Sacramento, California.

Persons wishing further information about this matter may contact Guido Franco at (916) 654-3940, gfranco@energy.state.ca.us or Sarah Pittiglio at (916) 654-3962, spittigl@energy.state.ca.us

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ARTHUR H. ROSENFELD, Ph.D.
Commissioner and Presiding Chair
RD& D Committee

Table A

California Energy Commission

PIER Environmental Program

Research Projects on Climate Change of Relevance to California Grant Solicitation

Committee Funding Recommendations

Summary of Awards by Topic

Project Title	Applicant Institution	Principal Investigator(s)	Requested Funding	Recommended PIER Funding
Topic 1: GHG Emission Reduction Strategies: In-depth Case Studies ($600,000)				
Deforestation in California: a poorly understood GHG emission source and emission reduction opportunity	Winrock International	Sandra Brown	$299,424	$299,424
Reducing Greenhouse Gas Emissions Through Local Government Action: Case Sudies of Five California Cities Five California Cities	Regents of the University of California, Davis	Daniel Sperling	$262,323	$262,323
		Topic 1 Award Total:	**$561,747**	**$561,747**
Topic 2: N2O Emissions from the Application of Fertilizers in Agricultural Soils ($500,000)				
N20 Emissions from the Application of Fertilizers in Agricultural Soils	Regents of the University of California, Davis	Johan Six	$499,960	$499,960
		Topic 2 Award Total:	**$499,960**	**$499,960**
Topic 3: Adaptation Studies: Local to Regional Scales ($600,000)				
Developing Flexible and Robust Water Management Climate Change Adaptation Strategies in the Sierra Nevada	RAND Corporation	Frank McKown	$199,489	$199,491
Reductions in Urban Outdoor Water Use as an Adaptation to Rising Temperatures and Declining Water Supplies in Southern California	Regents of the University of California, Irvine	Diane Pataki	$199,737	$199,737
		Topic 3 Award Total:	**$399,226**	**$399,228**
Topic 4: Collection of Ecological Data for Climate Change Studies ($400,000)				
Assessing Long-term Dynamics of Bird Distributions in Relation to Climate Change: From Grinnell to Present	Regents of the University of California, Berkeley	Steven Beissinger Craig Moritz	$199,999	$199,999
Informing Climate Models with Stand Level Ecological Data: Valley Oak Woodlands in California	Regents of the University of California, Santa Cruz	Erika Zavaleta	$68,725	$68,725
Systematic Terrestrial Vegetation Data Development for Climate Change Studies	Regents of the University of California, Davis	James Thorne	$199,997	$199,997
		Topic 4 Award Total:	**$468,721**	**$468,721**
Topic 5: Options to Reduce GHG Emissions in California by 2050 ($400,000)				
California's Carbon Challenge: An Integrated Modeling Framework to Reduce GHG Emissions in California by 2050	Lawrence Berkeley National Laboratory	James McMahon	$400,000	$400,000
		Topic 5 Award Total:	**$400,000**	**$400,000**
Topic 6: Contribution of Snowmelt to Underground Water Recharge ($400,000)				
Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	Desert Research Institute	Sam Earman	$399,990	$399,990
		Topic 6 Award Total:	**$399,990**	**$399,990**
		Total of all Awarded Projects:	**$2,729,644**	**$2,729,646**

California Energy Commission
PIER Environmental Program
Committee Funding Recommendations for the Climate Change RD&D Grant Solicitation

Proposals Ranked by Topic

Proposal Number	Topic Number	Project Title	Applicant Institution	Principal Investigator(s)	Requested PIER Funding	Recommended PIER Funding	Match Funds	Score	Overall Rank	Rank Within Topic
Topic 1: GHG Emission Reduction Strategies: In-depth Case Studies ($600,000)										
16	1	Deforestation in California: a poorly understood GHG emission source and emission reduction opportunity	Winrock International Institute for Agricultural Development	Sandra Brown	$299,424	$299,424	$0	85.1	5	1
3	1	Reducing Greenhouse Gas Emissions Through Local Government Action: Case Studies of Five California Cities	Regents of the University of California	Daniel Sperling	$262,323	$262,323	$0	79.0	13	2
32	1	Assessment of California GHG Reduction Opportunities from Plug-In Hybrid Electric Vehicles and Other Low GHG Vehicles	Energy and Environmental Economics Inc.	Snuller Price	$299,970	$0	$220,465	76.2	14	3
26	1	Reducing Greenhouse Gas Emissions in California's Dairy Industry Using Life Cycle Assessment	Regents of the University of California	Alissa Kendall	$299,025	$0	$25,049	71.5	17	4
33	1	A Comprehensive Study to Reduce Greenhouse Gas Emission from Residential Natural Gas Appliances in California	Davis Energy Group	Eric Lee	$239,508	$0	$0	71.5	18	5
21	1	Using wind power to reduce greenhouse gas emissions for electricity generation in California	Carnegie Institution for Science	Ken Caldeira	$101,499	$0	$0	70.8	21	6
14	1	GHG Emission Reduction Strategies: In-Depth Case Studies	BCS, Incorporated	William Choate H. Lee Schultz	$266,435	$0	$0	66.3	Did Not Pass	Did Not Pass
15	1	Biological Sequestration of Carbon Dioxide using Microscopic Algae	Oregon State University	Ganti Murthy	$214,550	$0	$0	65.1	Did Not Pass	Did Not Pass
Topic 2: N2O Emissions from the Application of Fertilizers in Agricultural Soils ($500,000)										
28	2	N20 Emissions from the Application of Fertilizers in Agricultural Soils	Regents of the University of California	Johan Six	$499,960	$499,960	$25,444	87.6	3	1
20	2	Agricultural Soil Greenhouse Gas Measurement and Modeling in the Salinas Valley, California	Foundation of California State University Monterey Bay	Marc Los Huertos Fred Watson	$499,797	$0	$0	71.1	20	2
19	2	N20 Emissions from the Application of Fertilizers in Agricultural Soils	Regents of the University of California	Dennis Fitz	$500,000	$0	$41,000	68.7	Did Not Pass	Did Not Pass

Topic 3: Adaptation Studies: Local to Regional Scales ($600,000)

24	3	Developing Flexible and Robust Water Management Climate Change Adaptation Strategies in the Sierra Nevada	RAND Corporation	Frank McKown	$199,491	$199,491	$156,248	86.9	4	1
10	3	Reductions in Urban Outdoor Water Use as an Adaptation to Rising Temperatures and Declining Water Supplies in Southern California	Regents of the University of California	Diane Pataki	$199,737	$199,737	$0	79.6	12	2
37	3	The Heat is On - Adaptations to Climate Change in the Yuba-Bear Region	American Rivers, Inc.	Steve Rothert	$98,221	$0	$0	68.6	Did Not Pass	Did Not Pass
29	3	Effect of Wetland Buffers on Wave Heights in the San Francisco Bay	SF Bay Conservation and Development Commission	Steve Goldbeck	$198,500	$0	$42,150	54.6	Did Not Pass	Did Not Pass

Topic 4: Collection of Ecological Data for Climate Change Studies ($400,000)

17	4	Assessing Long-term Dynamics of Bird Distributions in Relation to Climate Change: From Grinnell to Present	Regents of the University of California	Steven Beissinger Craig Moritz	$199,999	$199,999	$46,506	91.6	1	1
9	4	Informing Climate Models with Stand Level Ecological Data: Valley Oak Woodlands in California	Regents of the University of California	Erika Zavaleta	$68,725	$68,725	$0	90.6	2	2
27	4	Systematic Terrestrial Vegetation Data Development for Climate Change Studies	Regents of the University of California	James Thorne	$199,997	$199,997	$47,431	85.1	6	3
4	4	Providing spatially-referenced and linked floristic data, landscape photography and aerial imagery for historical and future ecological niche modeling in California	Regents of the University of California	N. Maggi Kelly	$143,769	$0	$0	71.4	19	4
1	4	Assessing elevation shifts in Yosemite National Park's bird species during the past ten years	The Institute for Bird Populations	Rodney Siegel	$198,653	$0	$13,426	68.8	Did Not Pass	Did Not Pass
6	4	Climate change and species distribution shifts in California: downscaling from macroclimate forcings to topoclimatic and microclimatic shifts	Creekside Center for Earth Observation	Stuart Weiss	$138,581	$0	$0	67.1	Did Not Pass	Did Not Pass
13	4	Tapping Our Botanical Heritage: Using the San Diego County Plant Atlas for Climate Change Research	San Diego Natural History Museum	Mary Ann Hawke	$141,397	$0	$68,369	63.4	Did Not Pass	Did Not Pass
35	4	Identification and Assessment of Potential Fisheries Metrics to Monitor Climate Change	CA Dept of Fish and Game	Russell Bellmer	$119,270	$0	$50,430	58.9	Did Not Pass	Did Not Pass
5	4	Preservation of Native Grasslands in the Face of Global Change	Regents of the University of California	Carla D'Antonio	$222,657	$0	$0	44.4	Did Not Pass	Did Not Pass

Topic 5: Options to Reduce GHG Emissions in California by 2050 ($400,000)

18	5	California's Carbon Challenge: An Integrated Modeling Framework to Reduce GHG Emissions in California by 2050	Lawrence Berkeley National Laboratory	James McMahon	$400,000	$400,000	$0	81.6	8	1
31	5	Deep Reductions by 2050: Modeling Long-Term, Multi-Sector GHG Reduction Options and Economics in California	Energy and Environmental Economics, Inc.	Jim Williams	$399,980	$0	$177,338	80.9	10	2
11	5	Climate Stabilization-Wedge equivalents of Implementing Urban Heat Island Mitigation Strategies: A California-Wide Assessment of Potential GHG Emission Reductions	Altostratus Inc.	Haider Taha	$130,085	$0	$25,000	76.1	15	3
36	5	Reduce Greenhouse Gas Emissions by 2050	Lawrence Livermore National Laboratory	Jeffrey Stewart	$400,000	$0	$1,165,000	74.8	16	4
12	5	Implementation Scenario Analysis of New Energy Pathways for California	Lawrence Berkeley National Laboratory	Thomas McKone	$400,000	$0	$0	63.9	Did Not Pass	Did Not Pass
8	5	Solar Powered Catalytic CO2 Reductions: A Carbon-Negative Option for 2050	Regents of the University of California	Bin Chen	$400,000	$0	$0	50.4	Did Not Pass	Did Not Pass
30	5	Reductions of GHG Emissions by Large Scale Deployment of Building Technologies in Urban Environments	City College of New York and San Jose State University	Jorge Gonzalez	$319,546	$0	$31,488	44.5	Did Not Pass	Did Not Pass

Topic 6: Contribution of Snowmelt to Underground Water Recharge ($400,000)

2	6	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	Desert Research Institute	Sam Earman	$399,990	$399,990	$0	84.0	7	1
34	6	Dissecting the dynamics of groundwater recharge in a mountain watershed using a combination of field observation and fully coupled hydrologic modeling	Regents of the University of California	Martha Conklin	$399,995	$0	$28,555	81.2	9	2
22	6	Climate Change Impacts on Snowpack Dynamics, Groundwater Recharge, and Baseflow in the Pit River Watershed, Northern California	Oregon State University	Anne Nolin	$399,941	$0	$0	80.8	11	3
23	6	Pine Creek Mine Discharge and Sierra Water Balance - A Measure of Recharge from Snowmelt through Mountain to Stream Flow	Lawrence Berkeley National Laboratory	Joseph S.Y. Wang	$399,885	$0	$0	65.9	Did Not Pass	Did Not Pass

Summary of Awards by Topic

Proposal Number	Topic Number	Project Title	Applicant Institution	Principal Investigator(s)	Recommended Funding	Recommended PIER Funding	Match Funds	Score	Overall Rank	Rank Within Topic
Topic 1: GHG Emission Reduction Strategies: In-depth Case Studies ($600,000)										
16	1	Deforestation in California: a poorly understood GHG emission source and emission reduction opportunity	Winrock International	Sandra Brown	$299,424	$299,424	$0	85.1	5	1
3	1	Reducing Greenhouse Gas Emissions Through Local Government Action: Case Sudies of Five California Cities Five California Cities	Regents of the University of California	Daniel Sperling	$262,323	$262,323	$0	79.0	13	2
				Topic 1 Award Total:	**$561,747**	**$561,747**	**$0**			
Topic 2: N2O Emissions from the Application of Fertilizers in Agricultural Soils ($500,000)										
28	2	N20 Emissions from the Application of Fertilizers in Agricultural Soils	Regents of the University of California	Johan Six	$499,960	$499,960	$25,444	87.6	3	1
				Topic 2 Award Total:	**$499,960**	**$499,960**	**$25,444**			
Topic 3: Adaptation Studies: Local to Regional Scales ($600,000)										
24	3	Developing Flexible and Robust Water Management Climate Change Adaptation Strategies in the Sierra Nevada	RAND Corporation	Frank McKown	$199,491	$199,491	$156,248	86.9	4	1
10	3	Reductions in Urban Outdoor Water Use as an Adaptation to Rising Temperatures and Declining Water Supplies in Southern California	Regents of the University of California	Diane Pataki	$199,737	$199,737	$0	79.6	12	2
				Topic 3 Award Total:	**$399,228**	**$399,228**	**$156,248**			
Topic 4: Collection of Ecological Data for Climate Change Studies ($400,000)										
17	4	Assessing Long-term Dynamics of Bird Distributions in Relation to Climate Change: From Grinnell to Present	Regents of the University of California	Steven Beissinger Craig Moritz	$199,999	$199,999	$46,506	91.6	1	1
9	4	Informing Climate Models with Stand Level Ecological Data: Valley Oak Woodlands in California	Regents of the University of California	Erika Zavaleta	$68,725	$68,725	$0	90.6	2	2
27	4	Systematic Terrestrial Vegetation Data Development for Climate Change Studies	Regents of the University of California	James Thorne	$199,997	$199,997	$47,431	85.1	6	3
				Topic 4 Award Total:	**$468,721**	**$468,721**	**$1,682,364**			

Topic 5: Options to Reduce GHG Emissions in California by 2050 ($400,000)

18	5	California's Carbon Challenge: An Integrated Modeling Framework to Reduce GHG Emissions in California by 2050	LBNL	James McMahon	$400,000	$400,000	$0	81.6	8	1
				Topic 5 Award Total:	**$400,000**	**$400,000**	**$0**			

Topic 6: Contribution of Snowmelt to Underground Water Recharge ($400,000)

2	6	Investigation of Methods of Potential Value to Monitor Groundwater Recharge in the Mountains of California	Desert Research Institute	Sam Earman	$399,990	$399,990	$0	84.0	7	1
				Topic 6 Award Total:	**$399,990**	**$399,990**	**$0**			

Total of all Awarded Projects:	**$2,729,646**	**$2,729,646**	**$275,629**